

Chapter Three

STATEWIDE ECONOMIC IMPACTS OF AVIATION

3.1 TOTAL IMPACTS

Total economic impacts are derived from the sum of on-airport direct impacts, off-airport direct impacts (visitor spending) and spin-off impacts (multiplier effect). As detailed in **Table 3.1**, the total economic impact of all Virginia airports, including Ronald Reagan Washington National Airport and Dulles International Airport is greater than \$14 billion. Total impacts by airport are detailed in **Tables 3.2-3.5**. **Table 3.2** depicts total impacts, alphabetically by airport. **Table 3.3** shows total impacts ranked by economic activity, **Table 3.4** shows total impacts ranked by total jobs, and **Table 3.5** shows total impacts ranked by wages.

Table 3.1

Virginia Economic Impact Study

Total Economic Impact for Virginia Public-Use Airports

Type of Impact	Jobs	Wages	Economic Activity
On-Airport Direct	8,190	\$275,372,000	\$610,059,000
Off-Airport Direct (Visitor Spending)	17,103	\$266,432,000	\$695,768,000
Spin-Off	13,451	\$379,577,000	\$1,093,312,000
Total Economic Impact*	38,744	\$921,381,000	\$2,399,139,000
Airport Dependent Business	23,606	\$773,179,000	\$2,268,056,000
Ronald Reagan Washington National Airport (Virginia Impacts)	35,779	\$1,026,891,000	\$1,715,653,000
Dulles International Airport (Virginia Impacts)	65,961	\$2,122,560,000	\$4,368,960,000
Total Economic Impact for All VA Airports	164,091	\$4,844,011,000	\$10,751,808,000

Source: EDRG and HNTB Analysis

* All airports except Ronald Reagan Washington National and Dulles International.

Note: Totals may not add due to rounding.

Note: Economic impacts for Ronald Reagan Washington National and Dulles International airports were provided by Martin Associates from their 2002 Economic Impact Study. With the assistance of Martin Associates, Virginia specific economic impacts were estimated by multiplying total impacts by the percent of employees located in Virginia. Total impacts for Ronald Reagan Washington National Airport are 62,700 jobs, \$1.97 billion in wages, and \$3.29 billion in economic activity. Total impacts for Dulles International Airport are 91,600 jobs, \$2.95 billion in wages, and \$6.07 billion in economic activity.

Table 3.2

Virginia Economic Impact Study

Total Airport Impacts - Alphabetical Listing

Airport Name	Jobs	Wages	Economic Activity
<u>Air Carrier Airports</u>			
Charlottesville-Albemarle	2,605	\$62,741,000	\$167,258,000
Lynchburg Regional	1,262	\$25,392,000	\$68,500,000
Newport News-Williamsburg International	2,459	\$55,491,000	\$148,124,000
Norfolk International	11,457	\$266,345,000	\$702,898,000
Richmond International	11,843	\$295,395,000	\$744,785,000
Roanoke Regional	4,148	\$94,981,000	\$252,728,000
Shenandoah Valley Regional	476	\$10,120,000	\$27,069,000
<u>General Aviation Airports</u>			
Accomack County	41	\$608,000	\$1,657,000
Blackstone Municipal	11	\$113,000	\$314,000
Blue Ridge	91	\$1,372,000	\$3,805,000
Bridgewater Air Park	123	\$3,464,000	\$8,910,000
Brookneal-Campbell County	1	\$21,000	\$57,000
Chase City Municipal	1	\$22,000	\$62,000
Chesapeake Regional	120	\$2,746,000	\$7,304,000
Chesterfield County	266	\$6,752,000	\$16,847,000
Crewe Municipal	3	\$44,000	\$121,000
Culpeper County	140	\$2,488,000	\$6,786,000
Danville Regional	74	\$1,650,000	\$4,323,000
Dinwiddie County	114	\$1,795,000	\$4,821,000
Emporia-Greensville Regional	18	\$206,000	\$567,000
Falwell	21	\$207,000	\$553,000
Farmville Regional	51	\$617,000	\$1,690,000
Franklin Municipal	23	\$379,000	\$992,000
Front Royal-Warren County	77	\$2,035,000	\$5,328,000
Gordonsville Municipal	8	\$202,000	\$529,000
Grundy Municipal	5	\$111,000	\$295,000
Hampton Roads	256	\$5,964,000	\$15,857,000
Hanover County Municipal	138	\$3,799,000	\$9,969,000
Hartwood Field	38	\$706,000	\$1,854,000
Hummel Field	13	\$181,000	\$486,000
Ingalls Field	16	\$344,000	\$922,000
Lake Anna	-	\$4,000	\$12,000
Lawrenceville-Brunswick	3	\$55,000	\$152,000
Lee County (Pennington Gap)	1	\$23,000	\$64,000
Leesburg Executive	617	\$16,966,000	\$40,582,000
Lonesome Pine	89	\$1,952,000	\$5,788,000
Louisa County	64	\$1,646,000	\$4,344,000

Table 3.2 Continued

Virginia Economic Impact Study

Total Airport Impacts - Alphabetical Listing

Airport Name	Jobs	Wages	Economic Activity
Lunenburg County	-	\$4,000	\$12,000
Luray Caverns	17	\$160,000	\$432,000
Manassas Regional	921	\$32,137,000	\$84,214,000
Marks Municipal	10	\$147,000	\$413,000
Mecklenburg-Brunswick Regional	33	\$326,000	\$914,000
Middle Peninsula Regional	34	\$583,000	\$1,610,000
Mountain Empire	27	\$674,000	\$1,912,000
New Kent County	33	\$720,000	\$1,887,000
New London	15	\$271,000	\$738,000
New Market	18	\$367,000	\$987,000
New River Valley	43	\$662,000	\$1,811,000
Orange County	23	\$390,000	\$1,059,000
Shannon	97	\$2,240,000	\$5,960,000
Smith Mountain Lake	9	\$157,000	\$430,000
Suffolk Municipal	144	\$2,816,000	\$7,333,000
Tangier Island	5	\$45,000	\$125,000
Tappahannock Municipal	12	\$225,000	\$610,000
Tazewell County	21	\$351,000	\$947,000
Twin County	12	\$226,000	\$613,000
Virginia Highlands	113	\$3,024,000	\$7,033,000
Virginia Tech/Montgomery Executive	39	\$913,000	\$2,430,000
Wakefield Municipal	15	\$294,000	\$802,000
Warrenton-Fauquier	193	\$2,855,000	\$7,572,000
Waynesboro	16	\$179,000	\$479,000
William M. Tuck	25	\$583,000	\$1,555,000
Williamsburg-Jamestown	82	\$1,406,000	\$3,826,000
Winchester Regional	114	\$2,689,000	\$7,082,000
Totals	38,744	\$927,279,000	\$2,415,286,000
Stafford Regional*	22	\$566,000	\$1,492,000
Lee County (Jonesville)*	5	\$68,000	\$192,000

Source: EDRG and HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

Table 3.3

Virginia Economic Impact Study

Total Airport Impacts - Listing by Economic Activity

Airport Name	Economic Activity	Jobs	Wages
<u>Air Carrier Airports</u>			
Richmond International	\$744,785,000	11,843	\$295,395,000
Norfolk International	\$702,898,000	11,457	\$266,345,000
Roanoke Regional	\$252,728,000	4,148	\$94,981,000
Charlottesville-Albemarle	\$167,258,000	2,605	\$62,741,000
Newport News-Williamsburg International	\$148,124,000	2,459	\$55,491,000
Lynchburg Regional	\$68,500,000	1,262	\$25,392,000
Shenandoah Valley Regional	\$27,069,000	476	\$10,120,000
<u>General Aviation Airports</u>			
Manassas Regional	\$84,214,000	921	\$32,137,000
Leesburg Executive	\$40,582,000	617	\$16,966,000
Chesterfield County	\$16,847,000	266	\$6,752,000
Hampton Roads	\$15,857,000	256	\$5,964,000
Hanover County Municipal	\$9,969,000	138	\$3,799,000
Bridgewater Air Park	\$8,910,000	123	\$3,464,000
Warrenton-Fauquier	\$7,572,000	193	\$2,855,000
Suffolk Municipal	\$7,333,000	144	\$2,816,000
Chesapeake Regional	\$7,304,000	120	\$2,746,000
Winchester Regional	\$7,082,000	114	\$2,689,000
Virginia Highlands	\$7,033,000	113	\$3,024,000
Culpeper County	\$6,786,000	140	\$2,488,000
Shannon	\$5,960,000	97	\$2,240,000
Lonesome Pine	\$5,788,000	89	\$1,952,000
Front Royal-Warren County	\$5,328,000	77	\$2,035,000
Dinwiddie County	\$4,821,000	114	\$1,795,000
Louisa County	\$4,344,000	64	\$1,646,000
Danville Regional	\$4,323,000	74	\$1,650,000
Williamsburg-Jamestown	\$3,826,000	82	\$1,406,000
Blue Ridge	\$3,805,000	91	\$1,372,000
Virginia Tech/Montgomery Executive	\$2,430,000	39	\$913,000
Mountain Empire	\$1,912,000	27	\$674,000
New Kent County	\$1,887,000	33	\$720,000
Hartwood Field	\$1,854,000	38	\$706,000
New River Valley	\$1,811,000	43	\$662,000
Farmville Regional	\$1,690,000	51	\$617,000
Accomack County	\$1,657,000	41	\$608,000
Middle Peninsula Regional	\$1,610,000	34	\$583,000
William M. Tuck	\$1,555,000	25	\$583,000

Table 3.3 Continued

Virginia Economic Impact Study

Total Airport Impacts - Listing By Economic Activity

Airport Name	Economic Activity	Jobs	Wages
Orange County	\$1,059,000	23	\$390,000
Franklin Municipal	\$992,000	23	\$379,000
New Market	\$987,000	18	\$367,000
Tazewell County	\$947,000	21	\$351,000
Ingalls Field	\$922,000	16	\$344,000
Mecklenburg-Brunswick Regional	\$914,000	33	\$326,000
Wakefield Municipal	\$802,000	15	\$294,000
New London	\$738,000	15	\$271,000
Twin County	\$613,000	12	\$226,000
Tappahannock Municipal	\$610,000	12	\$225,000
Emporia-Greenville Regional	\$567,000	18	\$206,000
Falwell	\$553,000	21	\$207,000
Gordonsville Municipal	\$529,000	8	\$202,000
Hummel Field	\$486,000	13	\$181,000
Waynesboro	\$479,000	16	\$179,000
Luray Caverns	\$432,000	17	\$160,000
Smith Mountain Lake	\$430,000	9	\$157,000
Marks Municipal	\$413,000	10	\$147,000
Blackstone Municipal	\$314,000	11	\$113,000
Grundy Municipal	\$295,000	5	\$111,000
Lawrenceville-Brunswick	\$152,000	3	\$55,000
Tangier Island	\$125,000	5	\$45,000
Crewe Municipal	\$121,000	3	\$44,000
Lee County (Pennington Gap)	\$64,000	1	\$23,000
Chase City Municipal	\$62,000	1	\$22,000
Brookneal-Campbell County	\$57,000	1	\$21,000
Lake Anna	\$12,000	-	\$4,000
Lunenburg County	\$12,000	-	\$4,000
Totals	\$2,399,139,000	38,744	\$921,381,000
Stafford Regional*	\$1,492,000	22	\$566,000
Lee County (Jonesville)*	\$192,000	5	\$68,000

Source: EDRG and HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

Table 3.4

Virginia Economic Impact Study

Total Airport Impacts - Listed by Number of Jobs

Airport Name	Jobs	Economic Activity	Wages
<u>Air Carrier Airports</u>			
Richmond International	11,843	\$744,785,000	\$295,395,000
Norfolk International	11,457	\$702,898,000	\$266,345,000
Roanoke Regional	4,148	\$252,728,000	\$94,981,000
Charlottesville-Albemarle	2,605	\$167,258,000	\$62,741,000
Newport News-Williamsburg International	2,459	\$148,124,000	\$55,491,000
Lynchburg Regional	1,262	\$68,500,000	\$25,392,000
Shenandoah Valley Regional	476	\$27,069,000	\$10,120,000
<u>General Aviation Airports</u>			
Manassas Regional	921	\$84,214,000	\$32,137,000
Leesburg Executive	617	\$40,582,000	\$16,966,000
Chesterfield County	266	\$16,847,000	\$6,752,000
Hampton Roads	256	\$15,857,000	\$5,964,000
Warrenton-Fauquier	193	\$7,572,000	\$2,855,000
Suffolk Municipal	144	\$7,333,000	\$2,816,000
Culpeper County	140	\$6,786,000	\$2,488,000
Hanover County Municipal	138	\$9,969,000	\$3,799,000
Bridgewater Air Park	123	\$8,910,000	\$3,464,000
Chesapeake Regional	120	\$7,304,000	\$2,746,000
Winchester Regional	114	\$7,082,000	\$2,689,000
Dinwiddie County	114	\$4,821,000	\$1,795,000
Virginia Highlands	113	\$7,033,000	\$3,024,000
Shannon	97	\$5,960,000	\$2,240,000
Blue Ridge	91	\$3,805,000	\$1,372,000
Lonesome Pine	89	\$5,788,000	\$1,952,000
Williamsburg-Jamestown	82	\$3,826,000	\$1,406,000
Front Royal-Warren County	77	\$5,328,000	\$2,035,000
Danville Regional	74	\$4,323,000	\$1,650,000
Louisa County	64	\$4,344,000	\$1,646,000
Farmville Regional	51	\$1,690,000	\$617,000
New River Valley	43	\$1,811,000	\$662,000
Accomack County	41	\$1,657,000	\$608,000
Virginia Tech/Montgomery Executive	39	\$2,430,000	\$913,000
Hartwood Field	38	\$1,854,000	\$706,000
Middle Peninsula Regional	34	\$1,610,000	\$583,000
New Kent County	33	\$1,887,000	\$720,000
Mountain Empire	27	\$1,912,000	\$674,000
William M. Tuck	25	\$1,555,000	\$583,000

Table 3.4 Continued

Virginia Economic Impact Study

Total Airport Impacts - Listed by Number of Jobs

Airport Name	Jobs	Economic Activity	Wages
Mecklenburg-Brunswick Regional	33	\$914,000	\$326,000
Orange County	23	\$1,059,000	\$390,000
Franklin Municipal	23	\$992,000	\$379,000
Tazewell County	21	\$947,000	\$351,000
Falwell	21	\$553,000	\$207,000
New Market	18	\$987,000	\$367,000
Emporia-Greenville Regional	18	\$567,000	\$206,000
Luray Caverns	17	\$432,000	\$160,000
Ingalls Field	16	\$922,000	\$344,000
Waynesboro	16	\$479,000	\$179,000
Wakefield Municipal	15	\$802,000	\$294,000
New London	15	\$738,000	\$271,000
Hummel Field	13	\$486,000	\$181,000
Twin County	12	\$613,000	\$226,000
Tappahannock Municipal	12	\$610,000	\$225,000
Blackstone Municipal	11	\$314,000	\$113,000
Marks Municipal	10	\$413,000	\$147,000
Smith Mountain Lake	9	\$430,000	\$157,000
Gordonsville Municipal	8	\$529,000	\$202,000
Grundy Municipal	5	\$295,000	\$111,000
Tangier Island	5	\$125,000	\$45,000
Lawrenceville-Brunswick	3	\$152,000	\$55,000
Crewe Municipal	3	\$121,000	\$44,000
Lee County (Pennington Gap)	1	\$64,000	\$23,000
Chase City Municipal	1	\$62,000	\$22,000
Brookneal-Campbell County	1	\$57,000	\$21,000
Lake Anna	-	\$12,000	\$4,000
Lunenburg County	-	\$12,000	\$4,000
Totals	38,744	\$2,399,139,000	\$921,381,000
Stafford Regional*	22	\$1,492,000	\$566,000
Lee County (Jonesville)*	5	\$192,000	\$68,000

Source: EDRG and HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

Table 3.5

Virginia Economic Impact Study

Total Airport Impacts - Listed by Wages

Airport Name	Wages	Jobs	Economic Activity
<u>Air Carrier Airports</u>			
Richmond International	\$295,395,000	11,843	\$744,785,000
Norfolk International	\$266,345,000	11,457	\$702,898,000
Roanoke Regional	\$94,981,000	4,148	\$252,728,000
Charlottesville-Albemarle	\$62,741,000	2,605	\$167,258,000
Newport News-Williamsburg International	\$55,491,000	2,459	\$148,124,000
Lynchburg Regional	\$25,392,000	1,262	\$68,500,000
Shenandoah Valley Regional	\$10,120,000	476	\$27,069,000
<u>General Aviation Airports</u>			
Manassas Regional	\$32,137,000	921	\$84,214,000
Leesburg Executive	\$16,966,000	617	\$40,582,000
Chesterfield County	\$6,752,000	266	\$16,847,000
Hampton Roads	\$5,964,000	256	\$15,857,000
Hanover County Municipal	\$3,799,000	138	\$9,969,000
Bridgewater Air Park	\$3,464,000	123	\$8,910,000
Virginia Highlands	\$3,024,000	113	\$7,033,000
Warrenton-Fauquier	\$2,855,000	193	\$7,572,000
Suffolk Municipal	\$2,816,000	144	\$7,333,000
Chesapeake Regional	\$2,746,000	120	\$7,304,000
Winchester Regional	\$2,689,000	114	\$7,082,000
Culpeper County	\$2,488,000	140	\$6,786,000
Shannon	\$2,240,000	97	\$5,960,000
Front Royal-Warren County	\$2,035,000	77	\$5,328,000
Lonesome Pine	\$1,952,000	89	\$5,788,000
Dinwiddie County	\$1,795,000	114	\$4,821,000
Danville Regional	\$1,650,000	74	\$4,323,000
Louisa County	\$1,646,000	64	\$4,344,000
Williamsburg-Jamestown	\$1,406,000	82	\$3,826,000
Blue Ridge	\$1,372,000	91	\$3,805,000
Virginia Tech/Montgomery Executive	\$913,000	39	\$2,430,000
New Kent County	\$720,000	33	\$1,887,000
Hartwood Field	\$706,000	38	\$1,854,000
Mountain Empire	\$674,000	27	\$1,912,000
New River Valley	\$662,000	43	\$1,811,000
Farmville Regional	\$617,000	51	\$1,690,000
Accomack County	\$608,000	41	\$1,657,000
Middle Peninsula Regional	\$583,000	34	\$1,610,000
William M. Tuck	\$583,000	25	\$1,555,000

Table 3.5 Continued

Virginia Economic Impact Study

Total Airport Impacts - Listed by Wages

Airport Name	Wages	Jobs	Economic Activity
Orange County	\$390,000	23	\$1,059,000
Franklin Municipal	\$379,000	23	\$992,000
New Market	\$367,000	18	\$987,000
Tazewell County	\$351,000	21	\$947,000
Ingalls Field	\$344,000	16	\$922,000
Mecklenburg-Brunswick Regional	\$326,000	33	\$914,000
Wakefield Municipal	\$294,000	15	\$802,000
New London	\$271,000	15	\$738,000
Twin County	\$226,000	12	\$613,000
Tappahannock Municipal	\$225,000	12	\$610,000
Falwell	\$207,000	21	\$553,000
Emporia-Greensville Regional	\$206,000	18	\$567,000
Gordonsville Municipal	\$202,000	8	\$529,000
Hummel Field	\$181,000	13	\$486,000
Waynesboro	\$179,000	16	\$479,000
Luray Caverns	\$160,000	17	\$432,000
Smith Mountain Lake	\$157,000	9	\$430,000
Marks Municipal	\$147,000	10	\$413,000
Blackstone Municipal	\$113,000	11	\$314,000
Grundy Municipal	\$111,000	5	\$295,000
Lawrenceville-Brunswick	\$55,000	3	\$152,000
Tangier Island	\$45,000	5	\$125,000
Crewe Municipal	\$44,000	3	\$121,000
Lee County (Pennington Gap)	\$23,000	1	\$64,000
Chase City Municipal	\$22,000	1	\$62,000
Brookneal-Campbell County	\$21,000	1	\$57,000
Lake Anna	\$4,000	-	\$12,000
Lunenburg County	\$4,000	-	\$12,000
Totals	\$921,381,000	38,744	\$2,399,139,000
Stafford Regional*	\$566,000	22	\$1,492,000
Lee County (Jonesville)*	\$68,000	5	\$192,000

Source: EDRG and HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

3.2 ON-AIRPORT DIRECT IMPACTS

As shown in **Table 3.6**, on-airport direct impacts are more than \$610 million. Approximately 8190 individuals are employed by airports or airport tenants, with a total payroll of more than \$275 million, and an average annual salary of approximately \$33,600.

Table 3.6

Virginia Economic Impact Study

On-Airport Direct Impacts

Airport Name	Jobs	Wages	Economic Activity
<u>Air Carrier Airports</u>			
Charlottesville-Albemarle	259	\$9,311,000	\$22,843,000
Lynchburg Regional	222	\$5,767,000	\$13,768,000
Newport News-Williamsburg International	619	\$19,114,000	\$45,825,000
Norfolk International	1867	\$69,987,000	\$154,133,000
Richmond International	3117	\$103,602,000	\$216,773,000
Roanoke Regional	637	\$21,487,000	\$50,266,000
Shenandoah Valley Regional	72	\$2,283,000	\$5,424,000
<u>General Aviation Airports</u>			
Accomack County	8	\$109,000	\$269,000
Blackstone Municipal	3	\$20,000	\$49,000
Blue Ridge	19	\$261,000	\$669,000
Bridgewater Air Park	60	\$2,000,000	\$4,616,000
Brookneal-Campbell County	0	\$0	\$0
Chase City Municipal	0	\$0	\$0
Chesapeake Regional	29	\$930,000	\$2,187,000
Chesterfield County	91	\$2,924,000	\$6,082,000
Crewe Municipal	0	\$0	\$0
Culpeper County	24	\$343,000	\$887,000
Danville Regional	16	\$576,000	\$1,315,000
Dinwiddie County	19	\$221,000	\$516,000
Emporia-Greenville Regional	8	\$106,000	\$263,000
Falwell	9	\$78,000	\$186,000
Farmville Regional	15	\$119,000	\$296,000
Franklin Municipal	8	\$157,000	\$362,000
Front Royal-Warren County	31	\$1,054,000	\$2,465,000
Gordonsville Municipal	2	\$78,000	\$183,000
Grundy Municipal	1	\$40,000	\$94,000
Hampton Roads	64	\$2,031,000	\$4,784,000
Hanover County Municipal	43	\$1,571,000	\$3,678,000

Table 3.6 Continued

Virginia Economic Impact Study

On-Airport Direct Impacts

Airport Name	Jobs	Wages	Economic Activity
Hartwood Field	18	\$394,000	\$929,000
Hummel Field	3	\$30,000	\$68,000
Ingalls Field	3	\$45,000	\$106,000
Lake Anna	0	\$0	\$0
Lawrenceville-Brunswick	1	\$20,000	\$48,000
Lee County (Pennington Gap)	0	\$0	\$0
Leesburg Executive	257	\$8,230,000	\$16,304,000
Lonesome Pine	34	\$847,000	\$2,470,000
Louisa County	22	\$765,000	\$1,796,000
Lunenburg County	0	\$0	\$0
Luray Caverns	6	\$40,000	\$95,000
Manassas Regional	339	\$14,429,000	\$35,843,000
Marks Municipal	1	\$21,000	\$52,000
Mecklenburg-Brunswick Regional	7	\$47,000	\$116,000
Middle Peninsula Regional	1	\$24,000	\$59,000
Mountain Empire	6	\$250,000	\$650,000
New Kent County	7	\$181,000	\$415,000
New London	0	\$0	\$0
New Market	5	\$127,000	\$303,000
New River Valley	10	\$156,000	\$398,000
Orange County	5	\$98,000	\$234,000
Shannon	15	\$558,000	\$1,305,000
Smith Mountain Lake	3	\$60,000	\$148,000
Suffolk Municipal	35	\$819,000	\$1,989,000
Tangier Island	2	\$10,000	\$26,000
Tappahannock Municipal	4	\$97,000	\$235,000
Tazewell County	4	\$90,000	\$210,000
Twin County	1	\$36,000	\$84,000
Virginia Highlands	36	\$1,321,000	\$2,308,000
Virginia Tech/Montgomery Executive	9	\$325,000	\$760,000
Wakefield Municipal	0	\$0	\$0
Warrenton-Fauquier	59	\$715,000	\$1,687,000
Waynesboro	4	\$23,000	\$53,000
William M. Tuck	3	\$173,000	\$396,000
Williamsburg-Jamestown	25	\$451,000	\$1,147,000
Winchester Regional	22	\$821,000	\$1,892,000
Totals	8,190	\$275,372,000	\$610,059,000
Stafford Regional*	6	\$223,000	\$522,000
Lee County (Jonesville)*	1	\$16,000	\$40,000

Source: EDRG and HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

3.3 OFF-AIRPORT DIRECT IMPACTS (VISITOR SPENDING)

As shown in **Table 3.7**, off-airport direct impacts are more than \$695 million. Approximately 17,100 individuals are employed by visitor industries, with a total payroll of more than \$266 million, and an average annual salary of approximately \$15,500.

Table 3.7

Virginia Economic Impact Study

Off-Airport Direct Impacts (Visitor Spending)

Airport Name	Jobs	Wages	Economic Activity
<u>Air Carrier Airports</u>			
Charlottesville-Albemarle	1485	\$25,930,000	\$66,284,000
Lynchburg Regional	605	\$8,964,000	\$23,321,000
Newport News-Williamsburg International	926	\$13,084,000	\$33,828,000
Norfolk International	5797	\$86,024,000	\$227,536,000
Richmond International	4654	\$75,874,000	\$197,905,000
Roanoke Regional	2092	\$32,536,000	\$85,100,000
Shenandoah Valley Regional	240	\$3,536,000	\$9,186,000
<u>General Aviation Airports</u>			
Accomack County	18	\$239,000	\$623,000
Blackstone Municipal	4	\$45,000	\$120,000
Blue Ridge	39	\$526,000	\$1,380,000
Bridgewater Air Park	5	\$74,000	\$195,000
Brookneal-Campbell County	1	\$12,000	\$31,000
Chase City Municipal	1	\$12,000	\$33,000
Chesapeake Regional	46	\$672,000	\$1,750,000
Chesterfield County	71	\$1,150,000	\$2,948,000
Crewe Municipal	2	\$25,000	\$65,000
Culpeper County	67	\$1,075,000	\$2,765,000
Danville Regional	31	\$387,000	\$1,015,000
Dinwiddie County	56	\$800,000	\$2,078,000
Emporia-Greensville Regional	1	\$16,000	\$43,000
Falwell	3	\$43,000	\$112,000
Farmville Regional	16	\$235,000	\$614,000
Franklin Municipal	5	\$66,000	\$173,000
Front Royal-Warren County	12	\$157,000	\$411,000
Gordonsville Municipal	3	\$40,000	\$102,000
Grundy Municipal	2	\$25,000	\$65,000
Hampton Roads	99	\$1,445,000	\$3,763,000
Hanover County Municipal	40	\$662,000	\$1,698,000

Table 3.7 Continued

Virginia Economic Impact Study

Off-Airport Direct Impacts (Visitor Spending)

Airport Name	Jobs	Wages	Economic Activity
Hartwood Field	2	\$28,000	\$72,000
Hummel Field	5	\$74,000	\$194,000
Ingalls Field	7	\$151,000	\$390,000
Lake Anna	0	\$2,000	\$6,000
Lawrenceville-Brunswick	1	\$12,000	\$34,000
Lee County (Pennington Gap)	1	\$13,000	\$34,000
Leesburg Executive	105	\$2,133,000	\$5,338,000
Lonesome Pine	16	\$203,000	\$535,000
Louisa County	15	\$209,000	\$548,000
Lunenburg County	0	\$2,000	\$6,000
Luray Caverns	4	\$52,000	\$138,000
Manassas Regional	172	\$3,406,000	\$8,559,000
Marks Municipal	6	\$63,000	\$170,000
Mecklenburg-Brunswick Regional	14	\$139,000	\$376,000
Middle Peninsula Regional	23	\$305,000	\$807,000
Mountain Empire	11	\$144,000	\$381,000
New Kent County	14	\$235,000	\$601,000
New London	11	\$152,000	\$397,000
New Market	6	\$87,000	\$229,000
New River Valley	17	\$216,000	\$568,000
Orange County	9	\$127,000	\$337,000
Shannon	49	\$735,000	\$1,905,000
Smith Mountain Lake	2	\$32,000	\$84,000
Suffolk Municipal	55	\$814,000	\$1,963,000
Tangier Island	1	\$16,000	\$41,000
Tappahannock Municipal	3	\$35,000	\$94,000
Tazewell County	9	\$113,000	\$300,000
Twin County	7	\$93,000	\$246,000
Virginia Highlands	37	\$551,000	\$1,436,000
Virginia Tech/Montgomery Executive	16	\$209,000	\$550,000
Wakefield Municipal	11	\$165,000	\$431,000
Warrenton-Fauquier	57	\$933,000	\$2,391,000
Waynesboro	6	\$79,000	\$205,000
William M. Tuck	14	\$166,000	\$442,000
Williamsburg-Jamestown	23	\$340,000	\$887,000
Winchester Regional	53	\$744,000	\$1,929,000
Totals	17,103	\$266,432,000	\$695,768,000
Stafford Regional*	7	\$109,000	\$282,000
Lee County (Jonesville)*	2	\$24,000	\$63,000

Source: EDRG and HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

3.4 SPIN-OFF IMPACTS (MULTIPLIER EFFECT)

As shown in **Table 3.8**, Spin-off impacts are almost \$1.1 billion. Approximately 13,500 individuals are employed due to spin-off impacts, with a total payroll of more than \$379 million, and an average annual salary of approximately \$28,000.

Table 3.8

Virginia Economic Impact Study

Spin-Off Impacts (Multiplier Impacts)

Airport Name	Jobs	Wages	Economic Activity
<u>Air Carrier Airports</u>			
Charlottesville-Albemarle	861	\$27,500,000	\$78,131,000
Lynchburg Regional	435	\$10,661,000	\$31,411,000
Newport News-Williamsburg International	914	\$23,293,000	\$68,471,000
Norfolk International	3,793	\$110,334,000	\$321,229,000
Richmond International	4,072	\$115,919,000	\$330,107,000
Roanoke Regional	1,419	\$40,958,000	\$117,362,000
Shenandoah Valley Regional	164	\$4,301,000	\$12,459,000
<u>General Aviation Airports</u>			
Accomack County	15	\$260,000	\$765,000
Blackstone Municipal	4	\$48,000	\$145,000
Blue Ridge	33	\$585,000	\$1,756,000
Bridgewater Air Park	58	\$1,390,000	\$4,099,000
Brookneal-Campbell County	-	\$9,000	\$26,000
Chase City Municipal	-	\$10,000	\$29,000
Chesapeake Regional	45	\$1,144,000	\$3,367,000
Chesterfield County	104	\$2,678,000	\$7,817,000
Crewe Municipal	1	\$19,000	\$56,000
Culpeper County	49	\$1,070,000	\$3,134,000
Danville Regional	27	\$687,000	\$1,993,000
Dinwiddie County	39	\$774,000	\$2,227,000
Emporia-Greenville Regional	9	\$84,000	\$261,000
Falwell	9	\$86,000	\$255,000
Farmville Regional	20	\$263,000	\$780,000
Franklin Municipal	10	\$156,000	\$457,000
Front Royal-Warren County	34	\$824,000	\$2,452,000
Gordonsville Municipal	3	\$84,000	\$244,000
Grundy Municipal	2	\$46,000	\$136,000
Hampton Roads	93	\$2,488,000	\$7,310,000
Hanover County Municipal	55	\$1,566,000	\$4,593,000

Table 3.8

Virginia Economic Impact Study

Spin-Off Impacts (Multiplier Impacts)

Airport Name	Jobs	Wages	Economic Activity
Hartwood Field	18	\$284,000	\$853,000
Hummel Field	5	\$77,000	\$224,000
Ingalls Field	6	\$148,000	\$426,000
Lake Anna	0	\$2,000	\$6,000
Lawrenceville-Brunswick	1	\$23,000	\$70,000
Lee County (Pennington Gap)	0	\$10,000	\$30,000
Leesburg Executive	255	\$6,603,000	\$18,940,000
Lonesome Pine	39	\$902,000	\$2,783,000
Louisa County	27	\$672,000	\$2,000,000
Lunenburg County	0	\$2,000	\$6,000
Luray Caverns	7	\$68,000	\$199,000
Manassas Regional	410	\$14,302,000	\$39,812,000
Marks Municipal	3	\$63,000	\$191,000
Mecklenburg-Brunswick Regional	12	\$140,000	\$422,000
Middle Peninsula Regional	10	\$254,000	\$744,000
Mountain Empire	10	\$280,000	\$881,000
New Kent County	12	\$304,000	\$871,000
New London	4	\$119,000	\$341,000
New Market	7	\$153,000	\$455,000
New River Valley	16	\$290,000	\$845,000
Orange County	9	\$165,000	\$488,000
Shannon	33	\$947,000	\$2,750,000
Smith Mountain Lake	4	\$65,000	\$198,000
Suffolk Municipal	54	\$1,183,000	\$3,381,000
Tangier Island	2	\$19,000	\$58,000
Tappahannock Municipal	5	\$93,000	\$281,000
Tazewell County	8	\$148,000	\$437,000
Twin County	4	\$97,000	\$283,000
Virginia Highlands	40	\$1,152,000	\$3,289,000
Virginia Tech/Montgomery Executive	14	\$379,000	\$1,120,000
Wakefield Municipal	4	\$129,000	\$371,000
Warrenton-Fauquier	77	\$1,207,000	\$3,494,000
Waynesboro	6	\$77,000	\$221,000
William M. Tuck	8	\$244,000	\$717,000
Williamsburg-Jamestown	34	\$615,000	\$1,792,000
Winchester Regional	39	\$1,124,000	\$3,261,000
Totals	13,451	\$379,577,000	\$1,093,312,000
Stafford Regional*	9	\$234,000	\$687,000
Lee County (Jonesville)*	2	\$29,000	\$88,000

Source: EDRG and HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

3.5 AIRPORT DEPENDENT IMPACTS

As shown in **Table 3.9**, airport dependent business impacts are more than \$2.26 billion. Approximately 23,600 individuals are employed due to spin-off impacts (multiplier effect), with a total payroll of more than \$773, million, and an average annual salary of approximately \$32,700. Airport dependent business impacts are reported only for the airports that received valid responses to the airport dependent business survey effort.

Table 3.9

Virginia Economic Impact Study

Airport Dependent Business Impacts

Airport Name	Jobs	Wages	Economic Activity
<u>Air Carrier Airports</u>			
Charlottesville-Albemarle	1,640	\$52,977,000	\$158,006,000
Lynchburg Regional	4,015	\$109,574,000	\$311,960,000
Newport News-Williamsburg International	1,437	\$49,945,000	\$133,799,000
Norfolk International	3,523	\$107,991,000	\$314,665,000
Richmond International	4,697	\$171,549,000	\$498,382,000
Roanoke Regional	1,998	\$67,984,000	\$217,299,000
Shenandoah Valley Regional	778	\$20,733,000	\$67,041,000
<u>General Aviation Airports</u>			
Accomack County	-	-	-
Blackstone Municipal	-	-	-
Blue Ridge	98	\$2,475,000	\$7,015,000
Bridgewater Air Park	229	\$6,230,000	\$18,782,000
Brookneal-Campbell County	-	-	-
Chase City Municipal	-	-	-
Chesapeake Regional	-	-	-
Chesterfield County	796	\$24,665,000	\$65,940,000
Crewe Municipal	-	-	-
Culpeper County	644	\$18,272,000	\$59,595,000
Danville Regional	-	-	-
Dinwiddie County	87	\$4,107,000	\$14,437,000
Emporia-Greenville Regional	-	-	-
Falwell	-	-	-
Farmville Regional	592	\$13,997,000	\$53,061,000
Franklin Municipal	-	-	-
Front Royal-Warren County	-	-	-
Gordonsville Municipal	-	-	-
Grundy Municipal	-	-	-
Hampton Roads	10	\$285,000	\$852,000
Hanover County Municipal	10	\$346,000	\$965,000

Table 3.9

Virginia Economic Impact Study

Airport Dependent Business Impacts

Airport Name	Jobs	Wages	Economic Activity
Hartwood Field	-	-	-
Hummel Field	-	-	-
Ingalls Field	4	\$50,000	\$131,000
Lake Anna	-	-	-
Lawrenceville-Brunswick	-	-	-
Lee County (Pennington Gap)	-	-	-
Leesburg Executive	1,203	\$67,624,000	\$176,719,000
Lonesome Pine	-	-	-
Louisa County	-	-	-
Lunenburg County	-	-	-
Luray Caverns	-	-	-
Manassas Regional	409	\$16,870,000	\$46,893,000
Marks Municipal	-	-	-
Mecklenburg-Brunswick Regional	538	\$13,544,000	\$49,669,000
Middle Peninsula Regional	-	-	-
Mountain Empire	14	\$416,000	\$1,351,000
New Kent County	-	-	-
New London	-	-	-
New Market	-	-	-
New River Valley	-	-	-
Orange County	-	-	-
Shannon	-	-	-
Smith Mountain Lake	-	-	-
Suffolk Municipal	646	\$17,344,000	\$51,661,000
Tangier Island	-	-	-
Tappahannock Municipal	-	-	-
Tazewell County	-	-	-
Twin County	-	-	-
Virginia Highlands	178	\$4,109,000	\$11,060,000
Virginia Tech/Montgomery Executive	52	\$1,892,000	\$8,105,000
Wakefield Municipal	8	\$200,000	\$668,000
Warrenton-Fauquier	-	-	-
Waynesboro	-	-	-
William M. Tuck	-	-	-
Williamsburg-Jamestown	-	-	-
Winchester Regional	-	-	-
Totals	23,606	\$773,179,000	\$2,268,056,000
Stafford Regional*	-	-	-
Lee County (Jonesville)*	-	-	-

Source: EDRG and HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

3.6 QUALITATIVE IMPACTS

While the economic linkage between an airport and on-airport tenants and travel-related industries is readily apparent, there are less obvious interdependencies between airport and their communities. Although difficult to quantify, both non-aviation-related companies and the general public throughout the Commonwealth depend on Virginia airports for a variety of uses including:

- Search and Rescue
- Air medical transport
- Public safety
- Agriculture
- Recreation
- Just in time shipping

While this qualitative benefits summary does not include every community benefit, it does provide a comprehensive overview of benefits that airports provide, beyond the quantitative economic impacts of airport tenants and visitors. Additional airport-specific detail is provided in the individual airport economic impact summary brochures located in Chapter Four.

3.7 IMPACTS PER BASED AIRCRAFT, NUMBER OF OPERATIONS, AND ENPLANEMENTS

Measures that can serve as useful indexes to compare economic impacts and benefits between airports are the ratios of economic benefits to based aircraft and aircraft operations.

As applied to Virginia airports these ratios are shown below. **Table 3.10** details total economic impact per air carrier enplanement. **Tables 3.11 and 3.12** detail total economic impact per operation. Table 3.11 is an alphabetic listing. Table 3.12 is ranked by impact per operation. **Tables 3.13 and 3.14** detail total economic impact per based aircraft. Table 3.13 is an alphabetic listing. Table 3.14 is ranked by impact per based aircraft.

Table 3.10

Virginia Economic Impact Study

Total Economic Impact per Enplanement

Airport Name	2001 Enplanements	Total Impact	Impact per Enplanement
<u>Air Carrier Airports</u>			
Charlottesville-Albemarle	154,634	\$167,258,000	\$1,082
Lynchburg Regional	63,699	\$68,500,000	\$1,075
Newport News-Williamsburg International	209,520	\$148,124,000	\$707
Norfolk International	209,520	\$702,898,000	\$3,355
Richmond International	1,208,477	\$744,785,000	\$616
Roanoke Regional	304,328	\$252,728,000	\$830
Shenandoah Valley Regional	18,947	\$27,069,000	\$1,429

Source: HNTB Analysis

Table 3.11

Virginia Economic Impact Study

**Total Economic Impact per Operation
Alphabetic Listing**

Airport Name	2001 Operations	Total Impact	Impact per Operation
<u>Air Carrier Airports</u>			
Charlottesville-Albemarle	75,491	\$167,258,000	\$2,216
Lynchburg Regional	54,885	\$68,500,000	\$1,248
Newport News-Williamsburg International	219,224	\$148,124,000	\$676
Norfolk International	119,309	\$702,898,000	\$5,891
Richmond International	144,107	\$744,785,000	\$5,168
Roanoke Regional	100,850	\$252,728,000	\$2,506
Shenandoah Valley Regional	49,687	\$27,069,000	\$545
<u>General Aviation Airports</u>			
Accomack County	9,925	\$1,657,000	\$167
Blackstone Municipal	3,111	\$314,000	\$101
Blue Ridge	21,990	\$3,805,000	\$173
Bridgewater Air Park	11,189	\$8,910,000	\$796
Brookneal-Campbell County	741	\$57,000	\$77
Chase City Municipal	1,910	\$62,000	\$32
Chesapeake Regional	27,882	\$7,304,000	\$262
Chesterfield County	46,971	\$16,847,000	\$359
Crewe Municipal	3,740	\$121,000	\$32
Culpeper County	44,057	\$6,786,000	\$154
Danville Regional	16,171	\$4,323,000	\$267
Dinwiddie County	33,110	\$4,821,000	\$146
Emporia-Greenville Regional	1,107	\$567,000	\$512
Falwell	6,448	\$553,000	\$86
Farmville Regional	9,784	\$1,690,000	\$173
Franklin Municipal	4,490	\$992,000	\$221
Front Royal-Warren County	9,949	\$5,328,000	\$536
Gordonsville Municipal	5,878	\$529,000	\$90
Grundy Municipal	3,735	\$295,000	\$79
Hampton Roads	56,090	\$15,857,000	\$283
Hanover County Municipal	27,060	\$9,969,000	\$368
Hartwood Field	4,130	\$1,854,000	\$449
Hummel Field	11,099	\$486,000	\$44
Ingalls Field	6,218	\$922,000	\$148
Lake Anna	371	\$12,000	\$32
Lawrenceville-Brunswick	1,929	\$152,000	\$79
Lee County (Pennington Gap)	1,967	\$64,000	\$33
Leesburg Executive	85,050	\$40,582,000	\$477
Lonesome Pine	8,524	\$5,788,000	\$679

Table 3.11 Continued

Virginia Economic Impact Study

**Total Economic Impact per Operation
Alphabetic Listing**

Airport Name	2001 Operations	Total Impact	Impact per Operation
Louisa County	14,185	\$4,344,000	\$306
Lunenburg County	371	\$12,000	\$32
Luray Caverns	3,336	\$432,000	\$129
Manassas Regional	136,363	\$84,214,000	\$618
Marks Municipal	4,393	\$413,000	\$94
Mecklenburg-Brunswick Regional	5,984	\$914,000	\$153
Middle Peninsula Regional	12,021	\$1,610,000	\$134
Mountain Empire	9,866	\$1,912,000	\$194
New Kent County	14,561	\$1,887,000	\$130
New London	22,749	\$738,000	\$32
New Market	13,116	\$987,000	\$75
New River Valley	9,052	\$1,811,000	\$200
Orange County	8,150	\$1,059,000	\$130
Shannon	28,400	\$5,960,000	\$210
Smith Mountain Lake	4,799	\$430,000	\$90
Suffolk Municipal	31,268	\$7,333,000	\$235
Tangier Island	1,000	\$125,000	\$125
Tappahannock Municipal	5,380	\$610,000	\$113
Tazewell County	4,784	\$947,000	\$198
Twin County	6,359	\$613,000	\$96
Virginia Highlands	22,880	\$7,033,000	\$307
Virginia Tech/Montgomery Executive	14,231	\$2,430,000	\$171
Wakefield Municipal	11,157	\$802,000	\$72
Warrenton-Fauquier	38,094	\$7,572,000	\$199
Waynesboro	11,745	\$479,000	\$41
William M. Tuck	7,043	\$1,555,000	\$221
Williamsburg-Jamestown	21,490	\$3,826,000	\$178
Winchester Regional	30,738	\$7,082,000	\$230
Totals	1,721,699	\$2,399,139,000	
Stafford Regional*	4,500	\$1,492,000	\$332
Lee County (Jonesville)*	1,000	\$192,000	\$192

Source: HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

Table 3.12

Virginia Economic Impact Study

**Total Economic Impact per Operation
Ranked by Impact per Operation**

Airport Name	2001 Operations	Total Impact	Impact per Operation
<u>Air Carrier Airports</u>			
Norfolk International	119,309	\$702,898,000	\$5,891
Richmond International	144,107	\$744,785,000	\$5,168
Roanoke Regional	100,850	\$252,728,000	\$2,506
Charlottesville-Albemarle	75,491	\$167,258,000	\$2,216
Lynchburg Regional	54,885	\$68,500,000	\$1,248
Newport News-Williamsburg International	219,224	\$148,124,000	\$676
Shenandoah Valley Regional	49,687	\$27,069,000	\$545
<u>General Aviation Airports</u>			
Bridgewater Air Park	11,189	\$8,910,000	\$796
Lonesome Pine	8,524	\$5,788,000	\$679
Manassas Regional	136,363	\$84,214,000	\$618
Front Royal-Warren County	9,949	\$5,328,000	\$536
Emporia-Greenville Regional	1,107	\$567,000	\$512
Hartwood Field	4,130	\$1,854,000	\$449
Leesburg Executive	85,050	\$40,582,000	\$477
Hanover County Municipal	27,060	\$9,969,000	\$368
Chesterfield County	46,971	\$16,847,000	\$359
Louisa County	14,185	\$4,344,000	\$306
Virginia Highlands	22,880	\$7,033,000	\$307
Hampton Roads	56,090	\$15,857,000	\$283
Danville Regional	16,171	\$4,323,000	\$267
Franklin Municipal	4,490	\$992,000	\$221
Chesapeake Regional	27,882	\$7,304,000	\$262
Mountain Empire	9,866	\$1,912,000	\$194
Suffolk Municipal	31,268	\$7,333,000	\$235
Winchester Regional	30,738	\$7,082,000	\$230
Williamsburg-Jamestown	21,490	\$3,826,000	\$178
William M. Tuck	7,043	\$1,555,000	\$221
Virginia Tech/Montgomery Executive	14,231	\$2,430,000	\$171
Shannon	28,400	\$5,960,000	\$210
Tappahannock Municipal	5,380	\$610,000	\$113
New River Valley	9,052	\$1,811,000	\$200
Warrenton-Fauquier	38,094	\$7,572,000	\$199
Tazewell County	4,784	\$947,000	\$198
Gordonsville Municipal	5,878	\$529,000	\$90
Smith Mountain Lake	4,799	\$430,000	\$90
Falwell	6,448	\$553,000	\$86

Table 3.12 Continued

Virginia Economic Impact Study

**Total Economic Impact per Operation
Ranked by Impact per Operation**

Airport Name	2001 Operations	Total Impact	Impact per Operation
Orange County	8,150	\$1,059,000	\$130
Luray Caverns	3,336	\$432,000	\$129
New Kent County	14,561	\$1,887,000	\$130
Blue Ridge	21,990	\$3,805,000	\$173
Tangier Island	1,000	\$125,000	\$125
Farmville Regional	9,784	\$1,690,000	\$173
Grundy Municipal	3,735	\$295,000	\$79
Lawrenceville-Brunswick	1,929	\$152,000	\$79
New Market	13,116	\$987,000	\$75
Accomack County	9,925	\$1,657,000	\$167
Culpeper County	44,057	\$6,786,000	\$154
Mecklenburg-Brunswick Regional	5,984	\$914,000	\$153
Ingalls Field	6,218	\$922,000	\$148
Blackstone Municipal	3,111	\$314,000	\$101
Dinwiddie County	33,110	\$4,821,000	\$146
Twin County	6,359	\$613,000	\$96
Marks Municipal	4,393	\$413,000	\$94
Hummel Field	11,099	\$486,000	\$44
Middle Peninsula Regional	12,021	\$1,610,000	\$134
Waynesboro	11,745	\$479,000	\$41
Brookneal-Campbell County	741	\$57,000	\$77
Lee County (Pennington Gap)	1,967	\$64,000	\$33
Crewe Municipal	3,740	\$121,000	\$32
New London	22,749	\$738,000	\$32
Chase City Municipal	1,910	\$62,000	\$32
Lake Anna	371	\$12,000	\$32
Lunenburg County	371	\$12,000	\$32
Wakefield Municipal	11,157	\$802,000	\$72
Totals	1,721,699	\$2,399,139,000	
Stafford Regional*	4,500	\$1,492,000	\$332
Lee County (Jonesville)*	1,000	\$192,000	\$192

Source: HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

Table 3.13

Virginia Economic Impact Study

**Total Economic Impact per Based Aircraft
Alphabetic Listing**

Airport Name	2000 Based Aircraft	Total Impact	Impact per Based Aircraft
<u>Air Carrier Airports</u>			
Charlottesville-Albemarle	93	\$167,258,000	\$1,798,473
Lynchburg Regional	47	\$68,500,000	\$1,457,447
Newport News-Williamsburg International	114	\$148,124,000	\$1,299,333
Norfolk International	107	\$702,898,000	\$6,569,140
Richmond International	108	\$744,785,000	\$6,896,157
Roanoke Regional	117	\$252,728,000	\$2,160,068
Shenandoah Valley Regional	87	\$27,069,000	\$311,138
<u>General Aviation Airports</u>			
Accomack County	25	\$1,657,000	\$66,280
Blackstone Municipal	7	\$314,000	\$44,857
Blue Ridge	56	\$3,805,000	\$67,946
Bridgewater Air Park	17	\$8,910,000	\$524,118
Brookneal-Campbell County	2	\$57,000	\$28,500
Chase City Municipal	5	\$62,000	\$12,400
Chesapeake Regional	70	\$7,304,000	\$104,343
Chesterfield County	112	\$16,847,000	\$150,420
Crewe Municipal	10	\$121,000	\$12,100
Culpeper County	111	\$6,786,000	\$61,135
Danville Regional	41	\$4,323,000	\$105,439
Dinwiddie County	81	\$4,821,000	\$59,519
Emporia-Greenville Regional	3	\$567,000	\$189,000
Falwell	16	\$553,000	\$34,563
Farmville Regional	24	\$1,690,000	\$70,417
Franklin Municipal	12	\$992,000	\$82,667
Front Royal-Warren County	24	\$5,328,000	\$222,000
Gordonsville Municipal	15	\$529,000	\$35,267
Grundy Municipal	10	\$295,000	\$29,500
Hampton Roads	147	\$15,857,000	\$107,871
Hanover County Municipal	69	\$9,969,000	\$144,478
Hartwood Field	9	\$1,854,000	\$206,000
Hummel Field	29	\$486,000	\$16,759
Ingalls Field	6	\$922,000	\$153,667
Lake Anna	1	\$12,000	\$12,000
Lawrenceville-Brunswick	5	\$152,000	\$30,400
Lee County (Pennington Gap)	5	\$64,000	\$12,800
Leesburg Executive	211	\$40,582,000	\$192,332
Lonesome Pine	20	\$5,788,000	\$289,400

Table 3.13 Continued

Virginia Economic Impact Study

**Total Economic Impact per Based Aircraft
Alphabetic Listing**

Airport Name	2000 Based Aircraft	Total Impact	Impact per Based Aircraft
Louisa County	34	\$4,344,000	\$127,765
Lunenburg County	1	\$12,000	\$12,000
Luray Caverns	9	\$432,000	\$48,000
Manassas Regional	315	\$84,214,000	\$267,346
Marks Municipal	4	\$413,000	\$103,250
Mecklenburg-Brunswick Regional	14	\$914,000	\$65,286
Middle Peninsula Regional	30	\$1,610,000	\$53,667
Mountain Empire	26	\$1,912,000	\$73,538
New Kent County	38	\$1,887,000	\$49,658
New London	58	\$738,000	\$12,724
New Market	33	\$987,000	\$29,909
New River Valley	24	\$1,811,000	\$75,458
Orange County	22	\$1,059,000	\$48,136
Shannon	141	\$5,960,000	\$42,270
Smith Mountain Lake	13	\$430,000	\$33,077
Suffolk Municipal	80	\$7,333,000	\$91,663
Tangier Island	-	\$125,000	\$0
Tappahannock Municipal	14	\$610,000	\$43,571
Tazewell County	10	\$947,000	\$94,700
Twin County	14	\$613,000	\$43,786
Virginia Highlands	55	\$7,033,000	\$127,873
Virginia Tech/Montgomery Executive	33	\$2,430,000	\$73,636
Wakefield Municipal	28	\$802,000	\$28,643
Warrenton-Fauquier	98	\$7,572,000	\$77,265
Waynesboro	26	\$479,000	\$18,423
William M. Tuck	19	\$1,555,000	\$81,842
Williamsburg-Jamestown	56	\$3,826,000	\$68,321
Winchester Regional	79	\$7,082,000	\$89,646
Totals	3,090	\$2,399,139,000	
Stafford Regional*	6	\$1,492,000	\$248,667
Lee County (Jonesville)*	14	\$192,000	\$13,714

Source: HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.

Table 3.14

Virginia Economic Impact Study

**Total Economic Impact per Based Aircraft
Ranked by Impact per Based Aircraft**

Airport Name	2000 Based Aircraft	Total Impact	Impact per Based Aircraft
<u>Air Carrier Airports</u>			
Richmond International	108	\$744,785,000	\$6,896,157
Norfolk International	107	\$702,898,000	\$6,569,140
Roanoke Regional	117	\$252,728,000	\$2,160,068
Charlottesville-Albemarle	93	\$167,258,000	\$1,798,473
Lynchburg Regional	47	\$68,500,000	\$1,457,447
Newport News-Williamsburg International	114	\$148,124,000	\$1,299,333
Shenandoah Valley Regional	87	\$27,069,000	\$311,138
<u>General Aviation Airports</u>			
Bridgewater Air Park	17	\$8,910,000	\$524,118
Lonesome Pine	20	\$5,788,000	\$289,400
Manassas Regional	315	\$84,214,000	\$267,346
Hartwood Field	9	\$1,854,000	\$206,000
Front Royal-Warren County	24	\$5,328,000	\$222,000
Emporia-Greensville Regional	3	\$567,000	\$189,000
Leesburg Executive	211	\$40,582,000	\$192,332
Ingalls Field	6	\$922,000	\$153,667
Marks Municipal	4	\$413,000	\$103,250
Chesterfield County	112	\$16,847,000	\$150,420
Louisa County	34	\$4,344,000	\$127,765
Hanover County Municipal	69	\$9,969,000	\$144,478
Virginia Highlands	55	\$7,033,000	\$127,873
Hampton Roads	147	\$15,857,000	\$107,871
Danville Regional	41	\$4,323,000	\$105,439
Chesapeake Regional	70	\$7,304,000	\$104,343
Franklin Municipal	12	\$992,000	\$82,667
Tazewell County	10	\$947,000	\$94,700
Virginia Tech/Montgomery Executive	33	\$2,430,000	\$73,636
Suffolk Municipal	80	\$7,333,000	\$91,663
Mountain Empire	26	\$1,912,000	\$73,538
Winchester Regional	79	\$7,082,000	\$89,646
Williamsburg-Jamestown	56	\$3,826,000	\$68,321
William M. Tuck	19	\$1,555,000	\$81,842
Tappahannock Municipal	14	\$610,000	\$43,571
Warrenton-Fauquier	98	\$7,572,000	\$77,265
New River Valley	24	\$1,811,000	\$75,458
Falwell	16	\$553,000	\$34,563
Gordonsville Municipal	15	\$529,000	\$35,267

Table 3.14 Continued

Virginia Economic Impact Study

**Total Economic Impact per Based Aircraft
Ranked by Impact per Based Aircraft**

Airport Name	2000 Based Aircraft	Total Impact	Impact per Based Aircraft
Farmville Regional	24	\$1,690,000	\$70,417
New Kent County	38	\$1,887,000	\$49,658
Blue Ridge	56	\$3,805,000	\$67,946
Smith Mountain Lake	13	\$430,000	\$33,077
New Market	33	\$987,000	\$29,909
Accomack County	25	\$1,657,000	\$66,280
Orange County	22	\$1,059,000	\$48,136
Luray Caverns	9	\$432,000	\$48,000
Lawrenceville-Brunswick	5	\$152,000	\$30,400
Mecklenburg-Brunswick Regional	14	\$914,000	\$65,286
Blackstone Municipal	7	\$314,000	\$44,857
Twin County	14	\$613,000	\$43,786
Grundy Municipal	10	\$295,000	\$29,500
Culpeper County	111	\$6,786,000	\$61,135
Waynesboro	26	\$479,000	\$18,423
Dinwiddie County	81	\$4,821,000	\$59,519
Middle Peninsula Regional	30	\$1,610,000	\$53,667
Hummel Field	29	\$486,000	\$16,759
Lee County (Pennington Gap)	5	\$64,000	\$12,800
New London	58	\$738,000	\$12,724
Chase City Municipal	5	\$62,000	\$12,400
Crewe Municipal	10	\$121,000	\$12,100
Brookneal-Campbell County	2	\$57,000	\$28,500
Wakefield Municipal	28	\$802,000	\$28,643
Lake Anna	1	\$12,000	\$12,000
Lunenburg County	1	\$12,000	\$12,000
Shannon	141	\$5,960,000	\$42,270
Tangier Island	-	\$125,000	\$0
Totals	3,090	\$2,399,139,000	
Stafford Regional*	6	\$1,492,000	\$248,667
Lee County (Jonesville)*	14	\$192,000	\$13,714

Source: HNTB Analysis

Note: Totals may not add due to rounding.

* Stafford Regional Airport opened 12/2001. The Lee County Airport (Jonesville) opened in 2002. An estimate of their 2002 impacts is provided for informational purposes, but is not included in state totals.